

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/747,702
Source: IFND
Date Processed by STIC: 10-07-2005

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 10/07/2005

PATENT APPLICATION: US/10/747,702

TIME: 12:54:20

Input Set : N:\Crif3\RULE60\10747702.raw.txt

Output Set: N:\CRF4\10062005\J747702.raw

```

1 <110> APPLICANT: Ahmad, Sultan
2     Banville, Denis
3     Fortin, Yves
4     Lembo, Paola
5     O'Donnell, Dajan
6     Shi-Hsiang, Shen
7 <120> TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
8 <130> FILE REFERENCE: 81823/268117
9 <140> CURRENT APPLICATION NUMBER: US/10/747,702
C--> 10 <141> CURRENT FILING DATE: 2003-12-30
11 <150> PRIOR APPLICATION NUMBER: Prio APPLICATION NUMBER: US/09/254,227
12 <151> PRIOR FILING DATE: 1999-03-03
13 <160> NUMBER OF SEQ ID NOS: 22
14 <170> SOFTWARE: PatentIn version 3.0
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 337
18 <212> TYPE: PRT
19 <213> ORGANISM: rat
20 <400> SEQUENCE: 1
21     Met Val Cys Val Leu Arg Asp Thr Thr Gly Arg Phe Val Ser Met Asp
22     1             5             10             15
23     Pro Thr Ile Ser Ser Leu Ser Thr Glu Ser Thr Thr Leu Asn Lys Thr
24             20             25             30
25     Gly His Pro Ser Cys Arg Pro Ile Leu Thr Leu Ser Phe Leu Val Pro
26             35             40             45
27     Ile Ile Thr Leu Leu Gly Leu Ala Gly Asn Thr Ile Val Leu Trp Leu
28             50             55             60
29     Leu Gly Phe Arg Met Arg Arg Lys Ala Ile Ser Val Tyr Val Leu Asn
30             65             70             75             80
31     Leu Ser Leu Ala Asp Ser Phe Phe Leu Cys Cys His Phe Ile Asp Ser
32             85             90             95
33     Leu Met Arg Ile Met Asn Phe Tyr Gly Ile Tyr Ala His Lys Leu Ser
34             100            105            110
35     Lys Glu Ile Leu Gly Asn Val Ala Phe Ile Pro Tyr Ile Ser Gly Leu
36             115            120            125
37     Ser Ile Leu Ser Ala Ile Ser Thr Glu Arg Cys Leu Ser Val Leu Trp
38             130            135            140
39     Pro Ile Trp Tyr His Cys His Arg Pro Arg Asn Met Ser Ala Ile Ile
40             145            150            155            160
41     Cys Val Leu Ile Trp Val Leu Ser Phe Leu Met Gly Ile Leu Asp Trp
42             165            170            175
43     Phe Phe Ser Gly Phe Leu Gly Glu Thr His His His Leu Trp Lys Asn
44             180            185            190

```

RAW SEQUENCE LISTING

DATE: 10/07/2005

PATENT APPLICATION: US/10/747,702

TIME: 12:54:20

Input Set : N:\Crf3\RULE60\10747702.raw.txt

Output Set: N:\CRF4\10062005\J747702.raw

```

45      Val Asp Phe Ile Val Thr Ala Phe Leu Ile Phe Leu Phe Met Leu Leu
46              195                      200                      205
47      Phe Gly Ser Ser Leu Ala Leu Leu Val Arg Ile Leu Cys Gly Ser Arg
48              210                      215                      220
49      Arg Lys Pro Leu Ser Arg Leu Tyr Val Thr Ile Ser Leu Thr Val Met
50              225                      230                      235                      240
51      Val Tyr Leu Ile Cys Gly Leu Pro Leu Gly Leu Tyr Leu Phe Leu Leu
52              245                      250                      255
53      Tyr Trp Phe Gly Ile His Leu His Tyr Pro Phe Cys His Ile Tyr Gln
54              260                      265                      270
55      Val Thr Val Leu Leu Ser Cys Val Asn Ser Ser Ala Asn Pro Ile Ile
56              275                      280                      285
57      Tyr Phe Leu Val Gly Ser Phe Arg His Arg Lys Lys His Arg Ser Leu
58              290                      295                      300
59      Lys Met Val Leu Lys Arg Ala Leu Glu Glu Thr Pro Glu Glu Asp Glu
60              305                      310                      315                      320
61      Tyr Thr Asp Ser His Val Gln Lys Pro Thr Glu Ile Ser Glu Arg Arg
62              325                      330                      335
63      Cys
64 <210> SEQ ID NO: 2
65 <211> LENGTH: 1011
66 <212> TYPE: DNA
67 <213> ORGANISM: rat
68 <400> SEQUENCE: 2
70      atggtttgtg ttctcagga cactactgga agatttgtga gcatggatcc aaccatctca      60
71      tccctcagta cagaatctac aacactgaat aaaactgggc atcccagttg caggccaatc      120
72      ctcaccctgt ccttcctggg ccccatcatc accctgcttg gattggcagg aaacaccatt      180
73      gtactctggc tcttgggatt ccgcatgcgc aggaaagcca tctcagtcta cgctcctcaac      240
74      ctgtctctgg cagactcctt ctctctctgc tgccatttta ttgactctct gatgcggatc      300
75      atgaacttct atggcatcta tgcccataaa ttaagcaaag aaatcttagg caatgtagca      360
76      ttcattccct atatctcagg cctgagcatc ctcagtgcga tcagcacgga gcgctgcctg      420
77      tctgtattgt ggccaatctg gtaccactgc caccgcccga gaaacatgtc agctattata      480
78      tgtgttctaa tctgggttct gtccctttctc atgggcatcc ttgactgggt tttctcagga      540
79      ttctgggtg agactcacca tcatttgtgg aaaaatgttg actttattgt aactgcattt      600
80      ctgatttttt tatttatgct tctctttggg tccagtctgg cgctactggg gaggatcctc      660
81      tgtgtttcca gacggaaaacc actgtccagg ctgtacgtta caatctctct cacagtgatg      720
82      gtctacctca tctgcggcct gcctctcggg ctttacttgt tcctgctata ttggtttggg      780
83      atccatttac attatccctt ttgtcacatt taccaagtta ctgtgctcct gtccctgtgtg      840
84      aacagctctg ccaaccccat catttacttc cttgtagggt cctttaggca ccgtaaaaag      900
85      catcggtccc tcaaaatggg tcttaaaaagg gctctggagg agactcctga ggaggatgaa      960
86      tatacagaca gccatgttca gaaaccact gagatctcag aaaggagatg t      1011
87 <210> SEQ ID NO: 3
88 <211> LENGTH: 322
89 <212> TYPE: PRT
90 <213> ORGANISM: Homo sapiens
91 <400> SEQUENCE: 3
93      Met Asp Pro Thr Ile Pro Val Leu Gly Thr Lys Leu Thr Pro Ile Asn
94      1              5              10              15
95      Gly Arg Glu Glu Thr Pro Cys Tyr Asn Gln Thr Leu Ser Phe Thr Gly

```

RAW SEQUENCE LISTING

DATE: 10/07/2005

PATENT APPLICATION: US/10/747,702

TIME: 12:54:20

Input Set : N:\Crf3\RULE60\10747702.raw.txt

Output Set: N:\CRF4\10062005\J747702.raw

```

96          20          25          30
97  Leu Thr Cys Ile Ile Ser Leu Val Ala Leu Thr Gly Asn Ala Val Val
98          35          40          45
99  Leu Trp Leu Leu Gly Cys Arg Met Arg Arg Asn Ala Val Ser Ile Tyr
100         50          55          60
101  Ile Leu Asn Leu Val Ala Ala Asn Phe Leu Phe Leu Ser Gly His Ile
102         65          70          75          80
103  Ile Phe Ser Pro Leu Pro Leu Ile Asn Ile Arg His Pro Ile Ser Lys
104          85          90          95
105  Ile Leu Ser Pro Val Met Thr Phe Pro Tyr Phe Ile Gly Leu Ser Met
106          100         105         110
107  Leu Ser Ala Ile Ser Thr Glu Arg Cys Leu Ser Ile Leu Trp Pro Ile
108          115         120         125
109  Trp Tyr His Cys Arg Arg Pro Arg Tyr Leu Ser Ser Val Met Cys Val
110          130         135         140
111  Leu Leu Trp Ala Leu Ser Leu Leu Arg Ser Ile Leu Glu Trp Met Phe
112          145         150         155         160
113  Cys Asp Phe Leu Phe Ser Gly Ala Asn Ser Val Trp Cys Glu Thr Ser
114          165         170         175
115  Asp Phe Ile Thr Ile Ala Trp Leu Val Phe Leu Cys Val Val Leu Cys
116          180         185         190
117  Gly Ser Ser Leu Val Leu Leu Val Arg Ile Leu Cys Gly Ser Arg Lys
118          195         200         205
119  Met Pro Leu Thr Arg Leu Tyr Val Thr Ile Leu Leu Thr Val Leu Val
120          210         215         220
121  Phe Leu Leu Cys Gly Leu Pro Phe Gly Ile Gln Trp Ala Leu Phe Ser
122          225         230         235         240
123  Arg Ile His Leu Asp Trp Lys Val Leu Phe Cys His Val His Leu Val
124          245         250         255
125  Ser Ile Phe Leu Ser Ala Leu Asn Ser Ser Ala Asn Pro Ile Ile Tyr
126          260         265         270
127  Phe Phe Val Gly Ser Phe Arg Gln Arg Gln Asn Arg Gln Asn Leu Lys
128          275         280         285
129  Leu Val Leu Gln Arg Ala Leu Gln Asp Thr Pro Glu Val Asp Glu Gly
130          290         295         300
131  Gly Gly Trp Leu Pro Gln Glu Thr Leu Glu Leu Ser Gly Ser Lys Leu
132          305         310         315         320
133  Glu Gln
135 <210> SEQ ID NO: 4
136 <211> LENGTH: 969
137 <212> TYPE: DNA
138 <213> ORGANISM: Homo sapiens
139 <400> SEQUENCE: 4
140  atggatccaa ccatcccagt cttgggtaca aaactgacac caatcaacgg acgtgaggag 60
141  actccttgct acaaccaaac cctgagcttc acggggctga cgtgcatcat ttcccttgct 120
142  gcgctgacag gaaacgcggt tgtgctctgg ctccctgggt gccgcatgcg caggaacgct 180
143  gtctccatct acatcctcaa cctggctcgc gccaaattcc tcttccttag cggccacatt 240
144  atattttcgc cgttaccctt catcaatatc cgccatccca tctccaaaat cctcagtcct 300
145  gtgatgacct ttccctactt tataggccta agcatgctga gcgccatcag caccgagcgc 360

```

RAW SEQUENCE LISTING

DATE: 10/07/2005

PATENT APPLICATION: US/10/747,702

TIME: 12:54:20

Input Set : N:\Crf3\RULE60\10747702.raw.txt

Output Set: N:\CRF4\10062005\J747702.raw

```

146      tgcctgtcca tctgtggcc catctggtac cactgccgcc gcccagata cctgtcatcg      420
147      gtcattgtgtg tctgtctctg ggccctgtcc ctgctgcgga gtatcctgga gtggatgttc      480
148      tgtgacttcc tgttttagtg tgctaattct gtttggtgtg aaacgtcaga ttccattaca      540
149      atcgcggtggc tggttttttt atgtgtggtt ctctgtgggt ccagcctggt cctgtctggtc      600
150      aggattctct gtggatcccg gaagatgccg ctgaccaggc tgtacgtgac catcctctctc      660
151      acagtgtctg tcttctctct ctgtggcctg ccctttggca ttcagtgggc cctgttttcc      720
152      aggatccacc tggattggaa agtcttattt tgtcatgtgc atctagtttc cattttcctg      780
153      tccgctctta acagcagtgc caaccccatc atttacttct tcgtgggctc ctttaggcag      840
154      cgtcaaaata ggcaaaacct gaagctggtt ctccaaaggg ctctgcagga cacgcctgag      900
155      gtggatgaag gtggagggtg gcttcctcag gaaaccctgg agctgtcggg aagcaaattg      960
156      gagcagtga
158 <210> SEQ ID NO: 5
159 <211> LENGTH: 322
160 <212> TYPE: PRT
161 <213> ORGANISM: Homo sapiens
162 <400> SEQUENCE: 5
163      Met Asp Pro Thr Val Pro Val Leu Gly Thr Glu Leu Thr Pro Ile Asn
164      1          5          10          15
165      Gly Arg Glu Glu Thr Pro Cys Tyr Lys Gln Thr Leu Ser Phe Thr Gly
166      20          25          30
167      Leu Thr Cys Ile Val Ser Leu Val Ala Leu Thr Gly Asn Ala Val Val
168      35          40          45
169      Leu Trp Leu Leu Gly Cys Arg Met Arg Arg Asn Ala Val Ser Ile Tyr
170      50          55          60
171      Ile Leu Asn Leu Val Ala Ala Asp Phe Leu Phe Leu Ser Gly His Ile
172      65          70          75          80
173      Ile Cys Ser Pro Leu Arg Leu Ile Asn Ile Ser His Pro Ile Ser Lys
174      85          90          95
175      Ile Leu Ser Pro Val Met Thr Phe Pro Tyr Phe Ile Gly Leu Ser Met
176      100         105         110
177      Leu Asn Ala Ile Ser Thr Glu Arg Cys Leu Ser Ile Leu Trp Pro Ile
178      115         120         125
179      Trp Tyr His Cys Arg Arg Pro Arg Tyr Leu Ser Ser Val Met Cys Val
180      130         135         140
181      Leu Leu Trp Ala Pro Ser Leu Leu Arg Ser Ile Leu Glu Trp Met Phe
182      145         150         155         160
183      Cys Asp Phe Leu Phe Ser Gly Ala Asp Ser Val Arg Cys Glu Thr Ser
184      165         170         175
185      Asp Phe Ile Thr Ile Ala Trp Leu Val Phe Leu Arg Val Val Leu Cys
186      180         185         190
187      Gly Ser Ser Leu Val Leu Leu Val Arg Ile Leu Cys Gly Ser Arg Lys
188      195         200         205
189      Met Pro Leu Thr Arg Leu Tyr Val Thr Ile Leu Leu Thr Val Leu Val
190      210         215         220
191      Phe Leu Leu Cys Gly Leu Pro Phe Gly Ile Gln Trp Ala Leu Phe Ser
192      225         230         235         240
193      Arg Ile His Leu Asp Trp Lys Val Leu Phe Cys His Val His Leu Val
194      245         250         255
195      Ser Ile Phe Leu Ser Ala Leu Asn Ser Ser Ala Asn Pro Ile Ile Tyr

```

RAW SEQUENCE LISTING

DATE: 10/07/2005

PATENT APPLICATION: US/10/747,702

TIME: 12:54:20

Input Set : N:\Crf3\RULE60\10747702.raw.txt

Output Set: N:\CRF4\10062005\J747702.raw

```

196          260          265          270
197      Phe Phe Met Gly Ser Phe Arg Gln Leu Gln Asn Arg Lys Thr Leu Lys
198          275          280          285
199      Leu Val Leu Gln Arg Asp Leu Gln Asp Thr Pro Glu Val Asp Glu Gly
200          290          295          300
201      Gly Trp Trp Leu Pro Gln Glu Thr Leu Glu Leu Ser Gly Ser Lys Leu
202      305          310          315          320
203      Glu Ile
205 <210> SEQ ID NO: 6
206 <211> LENGTH: 969
207 <212> TYPE: DNA
208 <213> ORGANISM: Homo sapiens
209 <400> SEQUENCE: 6
210      atggatccaa ccgtcccagt cttgggtaca gaactgacac caatcaacgg acgtgaggag      60
211      actccttgct acaagcagac cctgagcttc acgggggctga cgtgcatcgt ttcccttgct      120
212      gcgctgacag gaaacgcggt tgtgctctgg ctcttgggct gccgcatgcg caggaacgct      180
213      gtctccatct acatcctcaa cctggtcgcg gccgacttcc tcttccttag cggccacatt      240
214      atatgttcgc cgttacgcct catcaatc agccatccca tctccaaaat cctcagtcct      300
215      gtgatgacct ttccctactt tataggccta agcatgctga acgccatcag caccgagcgc      360
216      tgccctgtcca tctctgtggc catctgggtac cactgccgcc gccccagata cctgtcatcg      420
217      gtcattgtgtg tctctgtctg ggccccgtcc ctgctgcgga gtatcctgga gtggatgttc      480
218      tgtgacttcc tgttttagtg tgcctgattc gtctgggtgt aaacgtcaga ttccattaca      540
219      atcgcgtggc tgggtttttt acgtgtgggt ctctgtgggt ccagcctggt cctgctggtc      600
220      aggattctct gtggatcccc gaagatgccg ctgaccaggc tgtacgtgac catcctcctc      660
221      acagtgtctg tcttcctcct ctgtggcctg ccctttggca ttcagtgggc cctgttttcc      720
222      aggatccacc tggattggaa agtcttattt tgcattgtgc atctagttc cattttcctg      780
223      tccgctctta acagcagtgc caaccccatc atttacttct tcatgggctc ctttaggcag      840
224      cttcaaaaca ggaagaccct caagctgggt ctccagaggg atctgcagga cagccctgag      900
225      gtggatgaag gtggatgggt gcttcctcag gaaaccctgg agctgtcggg aagcaaattg      960
226      gagatctga      969
228 <210> SEQ ID NO: 7
229 <211> LENGTH: 322
230 <212> TYPE: PRT
231 <213> ORGANISM: Homo sapiens
232 <400> SEQUENCE: 7
233      Met Asp Pro Thr Val Ser Thr Leu Asp Thr Glu Leu Thr Pro Ile Asn
234      1          5          10          15
235      Gly Thr Glu Glu Thr Leu Cys Tyr Lys Gln Thr Leu Ser Leu Thr Val
236          20          25          30
237      Leu Thr Cys Ile Val Ser Leu Val Gly Leu Thr Gly Asn Ala Val Val
238          35          40          45
239      Leu Trp Leu Leu Gly Cys Arg Met Arg Arg Asn Ala Phe Ser Ile Tyr
240          50          55          60
241      Ile Leu Asn Leu Ala Ala Asp Phe Leu Phe Leu Ser Gly Arg Leu
242      65          70          75          80
243      Ile Tyr Ser Leu Leu Ser Phe Ile Ser Ile Pro His Thr Ile Ser Lys
244          85          90          95
245      Ile Leu Tyr Pro Val Met Met Phe Ser Tyr Phe Ala Gly Leu Asn Phe
246          100          105          110

```

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 10/07/2005

PATENT APPLICATION: US/10/747,702

TIME: 12:54:21

Input Set : N:\Crf3\RULE60\10747702.raw.txt

Output Set: N:\CRF4\10062005\J747702.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; N Pos. 25,28,31,34

Seq#:16; N Pos. 10,13

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/747,702

DATE: 10/07/2005

TIME: 12:54:21

Input Set : N:\Crf3\RULE60\10747702.raw.txt

Output Set: N:\CRF4\10062005\J747702.raw

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:517 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0

L:528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0